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Beam Experiments with the Grenoble Test Electron Resonance Ion Source at iThemba Labs

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At iThemba Laboratory for Accelerator Based Sciences (iThemba LABS) a copy of the so-called Grenoble Test Source (GTS) for the production of highly charged ions is installed. The source in combination with the K-200 cyclotron delivers high energy, high intensity beams for nuclear physics experiments.
Because the source is similar to the so-called GTS-LHC at CERN -and therefore named GTS2- a collaboration between the Accelerators and Beam Physics Group of CERN and the ion source group of iThemba LABS was proposed in which the development of high intensity Argon and Xenon beams is envisaged.
In this paper we present experiments in CW and afterglow operation with the GTS2 for Xenon beams at iThemba LABS.